

Release A CDR RID Report

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Document Data Server

RID ID CDR 44

Review SDPS/CSMS

Originator Ref GD-CDR-CL-17

Priority 2

Section

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Figure Table

Category Name Data Server (DSS) Design

Actionee ECS

Sub Category

Subject Excessive hardware in Data Server

Description of Problem or Suggestion:

Data Server has 4 Challenge XLs, 1 each for FSMS and DBMS, with 1 cold backup for each. However, a nearly equal RMA could be achieved with 1 machine serving as backup for both FSMS and DBMS. Since you can't run 2 versions of the FSMS at the same time, the full redundancy would not help concurrent testing.

Originator's Recommendation

Remove one Challenge XL from the DSS, using the other as backup for both DBMS and FSMS.

GSFC Response by:

GSFC Response Date

HAIS Response by: Mark Huber

HAIS Schedule 9/6/95

HAIS R. E. M. Huber

HAIS Response Date 9/15/95

The configuration proposed by the RID author is to use a single machine as a backup for both FSMS and DBMS. While this idea has merit, there are circumstances that prompted us to configure the system as we did. The single backup machine would have to have SCSI connections to the archive tape drives, FSMS DBMS disk, and science metadata DBMS disk just as the primary server machines are connected. SCSI connections between these devices may present a problem if two powered up servers are connected to the SCSI bus at the same time. We have experienced spurious SCSI reset and other configuration problems on this program (NASA prototype) and previous programs when connecting machines in this manner. (This is usually caused by the machine's driver and not an illegal or improper SCSI configuration.) Undesirable results may arise if the cold backup machine is powered up as a replacement for a failed server, at the same time as the active server machine is connected to shared peripherals. This configuration must be tested before the decision to use a single backup machine can be made.

We recommend procuring the hardware as proposed. Should using a single backup server for both FSMS and the DBMS prove feasible after testing, the extra Challenge XL machines from GSFC and LaRC will be used at EDC at Release B.

Status Closed

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Sponsor Kobler

Attachment if any
